

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
4 March 2004 (04.03.2004)

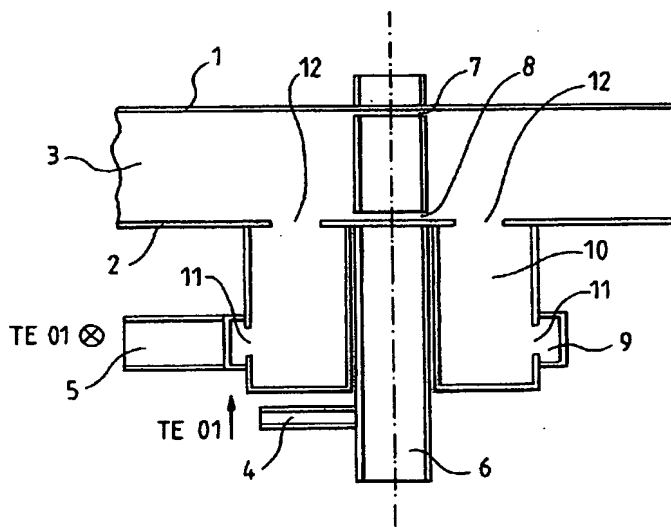
PCT

(10) International Publication Number  
**WO 2004/019451 A1**

- (51) International Patent Classification<sup>7</sup>: **H01Q 13/10**, (74) Agent: RUELLAN-LEMONNIER, Brigitte; 46 Quai Alphonse Le Gallo, F-92648 Boulogne cedex (FR).  
21/00
- (21) International Application Number: PCT/EP2003/050357 (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (22) International Filing Date: 4 August 2003 (04.08.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 0210507 23 August 2002 (23.08.2002) FR
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- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:  
— with international search report  
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

[Continued on next page]

(54) Title: RLSA ANTENNA HAVING TWO ORTHOGONAL LINEAR POLARISATIONS



(57) Abstract: The network antenna of the RLSA type in the form of a radial waveguide (3) has a feed structure allowing simultaneous excitation of the antenna in two orthogonal linear polarizations. The feed structure, essentially placed to the rear of the antenna, consists of a circular waveguide (6) placed at the centre of the radial waveguide and coupled to the latter by two circular slots (7, 8) for the excitation of the antenna in a first linear polarization and of a coaxial waveguide (10) surrounding the circular waveguide (6) and coupled to the radial waveguide (3) by radial slots (12), the coaxial waveguide (10) being excited by a ringshaped waveguide (9) placed coaxially on the outer periphery of the coaxial waveguide and coupled to the latter by slots (11) distributed around the inner periphery of the ring for the excitation of the antenna in a second linear polarization orthogonal to the first linear polarization.

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*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/EP 03/50357

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 H01Q13/10 H01Q21/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 H01Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)  
EPO-Internal, WPI Data, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	DE 42 12 886 A (HIRSCHMANN RICHARD GMBH CO) 21 October 1993 (1993-10-21) abstract; figures 1-6 column 3, line 14 -column 5, line 68 ---	1-5
A	US 5 661 498 A (GOTO NAOHISA ET AL) 26 August 1997 (1997-08-26) abstract; figures 1,2 column 3, line 17 -column 4, line 16 ---	1-5
A	US 4 716 415 A (KELLY KENNETH C) 29 December 1987 (1987-12-29) abstract column 1, line 8-19 column 3, line 35 -column 4, line 61 column 7, line 12-47 --- -/--	1-5

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

18 November 2003

Date of mailing of the international search report

20/01/2004

Name and mailing address of the ISA

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International Application No  
PCT/EP 03/50357

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 3 063 049 A (KELLY KENNETH C) 6 November 1962 (1962-11-06) figures 1-3 column 1, line 68-72 column 3, line 23 -column 5, line 58	1-5
A	ANDO M ET AL: "A LINEARLY POLARIZED RADIAL LINE SLOT ANTENNA" IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, IEEE INC. NEW YORK, US, vol. 36, no. 12, 1 December 1988 (1988-12-01), pages 1675-1680, XP000007860 ISSN: 0018-926X page 1675, left-hand column -page 1677, left-hand column	1-5

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 03/50357

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US 3063049	A	06-11-1962	NONE	